Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

Former LAKA Industries, Inc. Site
Town of North Hempstead, Nassau County
Site Number 1-30-043 K
Operable Unit - 01
On-site Soil and Groundwater

February 2000

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Former LAKA Industries, Inc. Inactive Hazardous Waste Site
Town of North Hempstead, Nassau County, New York
Site No. 1-30-043 K
Operable Unit - 01: On-site Soil and Groundwater

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Former LAKA Industries, Inc. class 2 inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law. The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Former LAKA Industries, Inc. inactive hazardous waste site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and the environment.

Description of Selected Remedy

Based on the results of the Focused Remedial Investigation/Feasibility Study (FRI/FS) for the Former LAKA Industries, Inc. site and the criteria identified for evaluation of alternatives, the NYSDEC has selected excavation of the on-site abandoned cesspool and the proper disposal of the waste materials off-site. The components of the remedy are as follows:

- Excavation of the first four feet of soil to locate any underground utilities and structures.
- Installation of shoring and bracing to protect personnel and the existing building during excavation.
- Excavation to a depth of 25 feet using appropriate excavation equipment to remove contaminated soils.

- Confirmatory soil samples will be collected at the bottom of the excavation to insure that all soils above the TAGM values were removed.

- Excavated soils will be staged and soil samples collected and analyzed to determine the proper method of off-site disposal and treatment, if necessary.

- Backfill of the excavation with clean fill material.

- Extract the contaminated sludges from the bottom of the catch basin located at 54 Kinkel Street by utilizing a vacuum truck. The sludge will be analyzed to determine the proper method of off-site disposal and treatment, if necessary.

- Semi-annual groundwater monitoring of four shallow and two deep monitoring wells, for at least two years, to measure quality improvements resulting from the removal of the source of contamination. The monitoring results will be reviewed annually to determine whether additional actions are necessary.

- Implementation of institutional controls and the recording of deed restrictions to restrict the future use of groundwater at the site.

- Off-site (downgradient) groundwater contamination will be addressed as a part of the overall investigation of the groundwater contamination that is migrating from all Class 2 sites in the NCIA.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

2/29/00
Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

TABLE OF CONTENTS

TABLE OF CONTENTS - CONTINUED

RECORD OF DECISION

FORMER LAKA INDUSTRIES, INC.

Town of North Hempstead, Nassau County, New York
Site No. 1-30-043 K
Operable Unit - 01: On-site Soil and Groundwater

February 2000

SECTION 1: SUMMARY AND PURPOSE OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) has selected this remedy to address the significant threat to human health and/or the environment created by the presence of hazardous waste at the Former LAKA Industries Site. The site is located in the New Cassel Industrial Area (NCIA). The site was listed in the Registry of Inactive Hazardous Waste Disposal Sites (the Registry) as a Class 2 site in March 1996. A Class 2 site is a site at which hazardous waste was disposed which presents a significant threat to the environment or the public health and action is required. The disposal of waste materials into an on-site cesspool has resulted in the discharge of a number of hazardous wastes, including 2-butanone, trichloroethylene (TCE) and related compounds, some of which were released or migrated from the site to surrounding areas, including the groundwater beneath and downgradient of the site. These disposal activities have resulted in the following significant threats to the public health and the environment:

- a significant threat to human health and the environment associated with this site's contravention of groundwater standards in a sole source aquifer.

The contaminated groundwater at the Former LAKA Industries site, as well as in the entire NCIA, presents a potential route of exposure to humans. The area is served by public water, however, the underlying aquifer is the source of the water supply for the Bowling Green Water District customers. An air stripping treatment system was constructed in 1996 to mitigate the impact of the groundwater contamination on the Bowling Green public water supply wells. The Bowling Green water supply wells are routinely monitored for purity and quality. Guard wells have been installed south of Old Country Road, in locations downgradient of NCIA hazardous waste disposal sites and upgradient of the water supply wells as a precautionary measure. Therefore, use of the groundwater in the area is not currently considered to be an exposure pathway of concern.

Currently, there are thirteen (13) Class 2 sites in the NCIA. The Department has been using a three-prong strategy in remediating Class 2 sites in the NCIA. First, sources of contamination at these

sites are removed or remediated; second, groundwater contamination at and beneath each site is fully investigated and appropriate remedial actions are taken; and third, the Department is currently conducting a detailed investigation of groundwater contamination that is migrating from all Class 2 sites in the NCIA. Upon completion of this groundwater investigation, a remedy will be proposed to the public. After public review, a final groundwater remedy will be selected.

The Site has been investigated to locate source areas of contamination. This Record of Decision (ROD) addresses the removal of these on-site sources of contamination. On-site groundwater contamination ranges from 130 parts per billion (ppb) to 198 ppb of total volatile organic compounds (VOCs). It is expected that after the removal of the on-site sources of contamination, groundwater quality would improve. In order to assure that groundwater quality improves after the source removal, on-site groundwater will be monitored for a period of at least two years. The monitoring results will be reviewed annually to determine whether additional actions are necessary. Downgradient (off-site) groundwater contamination ranges from 144 to 340 ppb of total VOCs. This off-site groundwater contamination will be addressed as a part of the overall investigation of groundwater contamination that is migrating from all Class 2 sites.

In order to restore the Former LAKA Industries inactive hazardous waste disposal site to pre-disposal conditions to the extent feasible and authorized by law, but at a minimum to eliminate or mitigate the significant threat to the public health and/or the environment that the hazardous waste disposed at the site has caused, the following remedy was selected to address the on-site soil and groundwater contamination:

- excavation and off-site disposal of contaminated soils and sediments from the abandoned cesspool on-site;

- removal and off-site disposal of contaminated sludge from the catch basin at 54 Kinkel Street;

- semi-annual monitoring of groundwater quality in the area of the site for a period of at least two years. The monitoring results will be reviewed annually to determine whether additional actions are necessary.

The selected remedies are intended to attain the remediation goals selected for this site in conformity with applicable Standards, Criteria, and Guidance (SCGs).

SECTION 2: SITE LOCATION AND DESCRIPTION

The Former LAKA Industries site, Site No. 1-30-043 K, is located west of the intersection of Old Country Road and the Wantagh State Parkway in the NCIA, an approximately 170 acre industrial and commercial area, in the Town of North Hempstead, Nassau County, New York. Please refer to Figures 1 and 2.

There are thirteen (13) Class 2 sites located within the NCIA. The site is located at 62 Kinkel Street which is comprised of approximately three quarters of an acre of land that was formerly occupied by Doak Pharmacal and now is unoccupied. Please refer to Figure 3.

The site is entirely paved or covered with the footprint of the building with the exception of a small landscaped area at the front of the building (west side). Due to the density of the commercial and industrial buildings in the NCIA, there are no significant surface water sources near the Former LAKA site. The nearest surface waters are the small ponds within the Eisenhower Memorial Park, approximately two miles to the southwest.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The LAKA Tool and Stamping Co., Inc. occupied the site from 1971 to 1978, performing precision metal stamping operations as a defense contractor. LAKA Industries, Inc., the parent company, operated at the site from 1979 to 1984 as a machine shop specializing in tools, dies and precision stamping. Both companies used TCE and lubricating oils as reported in the Nassau County Department of Health (NCDH) industrial chemical survey. As the NCIA was not serviced by public sewers until the 1980's, subsurface disposal was the common means of waste disposal in the area.

Dermkraft Pharmaceuticals, a manufacturer of cosmetics, occupied the site from 1985 to 1992. Dermkraft, the current owner, purchased the property in 1989. Doak Pharmacal, the latest occupant, has manufactured cosmetics at the site since 1992.

During a Preliminary Site Assessment (PSA) in 1995, soil samples were collected near the northwest corner of the building at 62 Kinkel Street. These soil samples contained TCE up to 3,900 parts per million (ppm) and 1,2 cis-dichloroethylene (1,2 cis-DCE) up to 640 ppm. Several of these soil samples taken from an apparent abandoned cesspool on the site contained a black sludge material.

3.2: Remedial History

In 1986 the Nassau County Department of Health (NCDH) completed an investigation of groundwater quality and found the NCIA to be a major source of volatile organic chemical contamination in groundwater. As a result of this investigation the NYSDEC classified the entire NCIA as a Class 2 site in August 1988.

The NYSDEC contracted with Lawler, Matusky & Skelly Engineers (LMS) to conduct a PSA to identify sources of groundwater contamination and Potential Responsible Parties (PRPs). In March 1995 the NYSDEC, based upon this investigation report by LMS in February 1995, delisted the entire NCIA, and listed seven Class 2 sites. Another PSA was conducted by LMS in 1995. Based upon this PSA, the NYSDEC listed five Class 2 sites in the Registry in March 1996, which included the Former LAKA Industries, Inc. site.

SECTION 4: SITE CONTAMINATION

To evaluate the contamination present at the site and to evaluate alternatives to address the significant threat to human health and/or the environment posed by the presence of hazardous waste, the NYSDEC has recently conducted a Focused Remedial Investigation/Focused Feasibility Study (FRI/FFS).

4.1: Summary of the Focused Remedial Investigation

The purpose of the FRI was to define the nature and extent of any contamination resulting from previous activities at the site. The FRI was conducted between November 1997 and October 1998. A report entitled "Focused Remedial Investigation, Former LAKA Industries Site", dated November 1998 has been prepared which describes the field activities and findings of the FRI in detail. These investigations were conducted using a geoprobe, a vehicle mounted probe unit, capable of advancing a small diameter sampling device to depths of approximately 90 feet below ground surface (bgs) to collect either soil or groundwater samples.

The FRI included the following activities:

- Installation of thirty geoprobe soil borings to delineate the extent of the cesspool source area contamination and to identify any other source areas;
- A total of sixty-nine soil samples were collected from soil probe locations;
- Collection of three geoprobe groundwater samples to establish the impacts of existing sources of contamination on groundwater quality;
- Installation of four deep soil borings to determine physical properties of the soil and hydrogeologic conditions. These borings were then converted to deep monitoring wells;
- Three shallow wells were installed and paired with the deep wells to assist in the determination of the vertical extent of groundwater contamination;
- Collection of one round of groundwater samples from six existing and seven newly installed monitoring wells to further establish the horizontal extent of groundwater contamination;
- Soil and groundwater samples were analyzed for VOCs and metals, while sludges were analyzed for VOCs, semi-volatile organic compounds (SVOCs) and metals.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the FRI analytical data was compared to environmental Standards, Criteria, and Guidance values (SCGs). Drinking water, groundwater, and surface water SCGs identified for the Former LAKA Industries site are based on Part 5 of NYS Sanitary Code and NYSDEC Ambient Water Quality Standards and Guidance Values. For soils, NYSDEC Technical and Administrative Guidance

Memorandum (TAGM) 4046 provides soil cleanup objectives for the protection of groundwater, background conditions, and health-based exposure scenarios. Guidance values for evaluating contamination in sediments are provided by the NYSDEC "Technical Guidance for Screening Contaminated Sediments".

Based on the FRI results, in comparison to the SCGs and potential human health and environmental exposure routes, certain soil areas of the site require remediation. The FRI results are summarized below. More complete information can be found in the FRI Report.

Chemical concentrations are reported in parts per billion (ppb) or in parts per million (ppm). For comparison purposes, where applicable, SCGs are provided for each medium.

4.1.1: Site Geology and Hydrogeology

The Upper Pleistocene deposits of poorly sorted sands and gravel that make up the Upper Glacial Aquifer (UGA) are found from the surface to a depth of approximately 80 ft bgs. The UGA is an unconfined aquifer consisting of poorly sorted sands and gravels. The underlying Magothy consists of finer sands, silt and small amounts of clay.

At the site there are no other hydrogeologic units located between UGA and the underlying Magothy formation. In general, the upper surface of the Magothy formation is found at least 100 ft bgs. However, based on observations during installation of wells for this investigation, the Magothy is found at significantly shallower depths (60-70 ft bgs) in the NCIA than in many other areas of Long Island. The UGA and the Magothy are in direct hydraulic connection; however, clay lenses are often found in the upper Magothy in this area. Depth of water is about 53 ft bgs in the area of the site and groundwater flows in a southwesterly direction. Both the UGA and Magothy have been designated as sole-source aquifers and are protected under state and federal legislation.

4.1.2: Nature of Contamination:

As described in the FRI Report, soil and groundwater samples were collected at the site to characterize the nature and extent of contamination. The main categories of contaminants which exceed their SCGs are inorganics (metals) and VOCs. The inorganic contaminants of concern are arsenic, cadmium, nickel, mercury and iron. The volatile organic compounds of concern are TCE and xylene.

4.1.3: Extent of Contamination

The following are the media that were investigated and a summary of the findings of the investigation:

Soil

The site is covered almost entirely by either building or pavement. Only a small strip of grassy area exists in front of the building. All the contamination is beneath the paved areas and there is no contamination in the surficial soils.

A geoprobe was utilized to collect a total of sixty-nine soil samples at thirty different locations on-site. A majority of these probes were installed in the suspected location of a former cesspool which was found to be contaminated during the PSA. During the probing, bottom sludge samples from a drainage structure at 54 Kinkel Street, which abuts the site to the south, were collected and analyzed.

Nineteen (19) soil samples were collected and analyzed for metals and VOCs. These soil samples were collected at depths ranging from 9-10 feet to 22-24 feet below ground surface from the numerous geoprobe sampling locations within the abandoned cesspool source area.

Table 1 summarizes the extent of contamination for the contaminants of concern in the soils and compares the data with the SCGs for the site.

Arsenic, mercury and nickel were detected within the area of the cesspool. Arsenic was detected at levels up to 14 ppm, with two samples above the TAGM level of 7.5 ppm. Mercury was detected at levels up to 1.0 ppm, with eleven samples above the TAGM level of 0.1 ppm. Nickel was detected at levels up to 97 ppm, with two samples above the TAGM level of 13 ppm. Iron was detected in all nineteen soil samples collected at the site at levels up to 10,300 ppm, with sixteen above the TAGM level of 2,000 ppm.

Volatile organic soil contamination above the soil cleanup objectives (TAGM 4046) was found within the abandoned cesspool and in the sludges collected from the drainage structure at 54 Kinkel Street, which abuts the site to the south. TCE was detected above the soil cleanup objective of 0.7 ppm in two of the sixty-nine soil samples collected. These samples had values of 1.7 ppm and 3.5 ppm and were collected from the cesspool. In addition 2-butanone was detected in one sample at 0.34 ppm, above the soil cleanup objective of 0.3 ppm in the cesspool source area.

Xylene was detected in the two sludge samples collected in the drainage structure at 54 Kinkel Street at 1.2 ppm and 1.7 ppm, above the soil cleanup level of 1.2 ppm. Please refer to Figures 4 and 5.

Groundwater

The Department has been using a three-prong strategy in remediating Class 2 sites in the NCIA. The first action identifies source areas at each sit which will be removed or remediated; the second action includes the investigation and proper remediation of groundwater contamination at and beneath each site; and the third action is efforts by the Department which includes the ongoing detailed investigation of groundwater contamination that is migrating from all Class 2 sites in the NCIA. Upon completion of this comprehensive groundwater investigation, a remedy will be proposed to the public. After public review, a final groundwater remedy will be selected.

Table 2 summarizes the extent of contamination for the contaminants of concern in the groundwater and compares the data with the SCGs for the Site.

A total of seven wells were installed during the FRI. These included three shallow and four deep monitoring wells to determine the vertical distribution of the contaminants. The seven new monitoring wells and six existing monitoring wells were sampled and analyzed for volatile organics and metals.

The shallow wells were completed at about 60 feet bgs near the bottom of the upper glacial aquifer. The shallow groundwater flows in a southwesterly direction. The two shallow upgradient wells MW-201 and FLMW-204A had total VOC levels of 14 ppb and 26 ppb respectively. MW-201 had tetrachloroethlyene (PCE) levels at 9 ppb, above the Groundwater Standard (GWS) of 5 ppb and FLMW-204A had trichloroethlyene (TCE) levels at 7 ppb and PCE levels at 14 ppb, which are both above the GWS of 5 ppb for each compound. The shallow on-site monitoring well MW-202 located upgradient of the cesspool source area had levels of 1,1-dichloroethane (1,1-DCA) at 55 ppb, 1,2-trans dichlorothlyene (1,2-trans DCE) at 8 ppb, 1,1,1-trichloroethane (1,1,1-TCA) at 49 ppb and PCE at 14 ppb. The shallow on-site monitoring well located downgradient of the cesspool source area DOAK MW-3 had levels of 1,2-trans DCE at 94 ppb, 1,1,1-TCA at 39 ppb TCE at 29 ppb and PCE at 10 ppb. These levels are higher than the GWS of 5 ppb for each individual compound. Three shallow monitoring wells Doak MW-1, MW-203 and Doak MW-2, which are located side gradient to the plume, had total VOCs at levels of 136 ppb, 120 ppb and 75 ppb respectively. The two shallow downgradient wells FLMW-205A and FLMW-206A had total VOCs at levels of 144 ppb, and 215 ppb respectively. FLMW- 205A had levels of 1,2-trans DCE at 98 ppb, and TCE at 36 ppb and FLMW- 206A had levels of 1,2-trans DCE at 110 ppb, 1,1,1-TCA at 38 ppb and TCE at 45 ppb. Please refer to Figure 6.

The deep wells were set into the top of the Magothy Aquifer about 110 feet bgs. The deeper groundwater flow tends to be in a more southerly direction than the shallow aquifer. The upgradient deep well FLMW-204B had total VOCs at 80 ppb, which consisted primarily of TCE at 35 ppb and PCE at 33 ppb. The deep on-site monitoring well FLMW-202B located upgradient of the cesspool source area had levels of TCE at 19 ppb and PCE at 38 ppb. The two deep downgradient wells FLMW-205B and FLMW-206B had total VOCs at levels of 340 ppb and 199 ppb respectively. FLMW-205B had levels at 1,2-trans dce 32 ppb, 1,1,1-TCA at 65 ppb, TCE at 99 ppb and PCE at 110 ppb. FLMW -206B had levels of 1,2-trans DCE at 23 ppb, TCA at 49 ppb, TCE at 34 ppb and PCE at 47 ppb. Please refer to Figure 7.

Both the shallow and deep groundwater monitoring wells indicate that the levels of groundwater contamination increase approximately three times as it passes under the site.

4.2: Summary of Human Exposure Pathways

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the health risks can be found in Section 6.3 of the FRI Report.

An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

Pathways which are known to or may exist at the site include:

- ingestion of soil. The site is covered by either pavement or building and hence, the ingestion pathway can not be completed. The Site Health and Safety Plan will address any potential exposure of construction workers to ingestion of site contaminants during the remediation of the site.

- inhalation of soil particles. The site is covered by either pavement or building and hence, the inhalation pathway can not be completed. The Site Health and Safety Plan will address any potential exposure of construction workers to inhalation of site contaminants during the remediation of the site. Also, the adjacent public may be exposed to fugitive emissions during construction. A Community Health and Safety Plan, which includes a community air monitoring plan would be implemented during site cleanup, to mitigate this potential exposure.

- ingestion of contaminated groundwater. An active supplemental treatment system is in place that prevents the completion of this exposure pathway. No known completed exposure pathways exist.

The contaminated groundwater at the Former LAKA Industries site, as well as in the entire NCIA, presents a potential route of exposure to humans. The area is served by public water, however, the underlying aquifer is the source of the water supply for the Bowling Green Water District customers. An air stripping treatment system was constructed in 1996 to mitigate the impact of the groundwater contamination on the Bowling Green public water supply wells. The Bowling Green water supply wells are routinely monitored for purity and quality. Presently, no site specific contaminants exceeding drinking water standards have been detected in water distributed to the public. Guard wells have been installed south of Old Country Road in locations downgradient of the NCIA inactive hazardous waste disposal sites and upgradient of the water supply wells as a precautionary measure. Therefore, use of the groundwater in the area in not currently considered to be an exposure pathway of concern.

4.3: Summary of Environmental Exposure Pathways

This section summarizes the types of environmental exposures which may be presented by the site. Due to the density of commercial and industrial buildings in the NCIA, there are no significant sources of surface water with close proximity to the Site. Virtually every open space in the industrial area has been covered by asphalt, concrete or buildings. As the industrial area is so highly developed no wildlife habitat exist in or near the Site. The nearest surface water sources are several small

ponds in and around Eisenhower Memorial Park, approximately two miles southwest of the site across Old Country Road.

Site-related contamination at the site is limited to the groundwater. The contaminated groundwater at the site, as well as in the entire NCIA, presents a potential route of exposure to the environment.

There are no known exposure pathways of concern between the contaminated groundwater and the environment. The potential for plants or animal species being exposed to site-related contaminants is highly unlikely.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The Potential Responsible Parties (PRP) for the site, documented to date, include:

- LAKA Tool & Stamping, Inc.
- LAKA Industries, Inc.
- DermKraft, Inc.

The PRPs declined to implement the FRI/FS at the site when requested by the NYSDEC. The PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the NYSDEC will refer the site for further action under the State Superfund. The PRPs would be subject to legal actions by the State for recovery of all response costs the State has incurred.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The overall remedial goal is to meet all Standards, Criteria and Guidance (SCGs) and be protective of human health and the environment.

The Department has been using a three-prong strategy in remediating Class 2 sites in the NCIA. The first action identifies the source areas at each site which will be remediated or removed; the second action includes the investigation and proper remediation of groundwater contamination at and beneath each site; and the third action is the ongoing efforts by the Department which include a detailed investigation of groundwater contamination that is migrating from all Class 2 sites in the NCIA. Upon completion of this groundwater investigation, the Department will propose a remedy to the public. After public review, a final groundwater remedy will be selected.

At a minimum, the remedy selected will eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The goals selected for this site are:

- Removal of the source of the soil contamination.
- Eliminate, to the extent practicable, the source of hazardous waste and the migration of contamination into the groundwater.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

Potential remedial alternatives for the Site were identified, screened and evaluated in the letter report entitled "Former LAKA Industries Focused Feasibility Study" dated May 1999.

A summary of the detailed analysis follows. As presented below, the time to construct does not include the time required to design the remedy, procure contracts for design and construction or to negotiate with responsible parties for the design and construction of the remedy.

7.1: Description of Alternatives

The potential remedies are intended to address soil and sediments at the site. Even though, on-site groundwater is contaminated with 130 ppb to 198 ppb total VOCs, it is expected that after the removal of the source, groundwater quality would improve and hence, monitoring of groundwater quality is included as part of all remedial alternatives. Downgradient (off-site) groundwater contamination, which ranges from 144 to 340 ppb of total VOCs, will be addressed as a part of the overall investigation of groundwater contamination that is migrating from all Class 2 sites in the NCIA.

Alternative 1: No Action

The no action alternative is evaluated as a procedural requirement and as a basis for comparison. It requires continued monitoring only, allowing the site to remain in an unremediated state. This alternative would leave the Site in its present condition and would not provide any additional protection to human health or the environment. The Site would remain as a Class 2 site.

No active remediation is proposed to be undertaken. Soil samples would be collected semi-annually to monitor the impacted area to ensure that it does not migrate either horizontally or vertically and assess changes in the chemistry of the contaminants due to natural bio-degradation.

Groundwater quality would be monitored semi-annually for a period of five years by collecting groundwater samples from the six monitoring wells sampled during the FRI.

Present Worth:	*$ 82,850*
Capital Cost:	*$ 0*
Annual O&M:	*$ 19,125*
Time to Construct:	*None*

Alternative 2: Excavation and Off-site Disposal

Alterative 2 would remove the contaminated soil by excavating the abandoned cesspool source area. Shoring and bracing would be required as the cesspool is adjacent to the on-site building. Soil in excess of the cleanup objectives were found in the abandoned cesspool at depths of approximately 15 to 22 ft bgs. The cesspool would be excavated to a depth of 25 feet and about 93 cubic yards of material would be removed and staged on-site. The excavated material would be analyzed to characterize it for proper off-site disposal. The resulting excavation would be backfilled with clean fill material.

The catch basin located at 54 Kinkel Street, abutting and downgradient of the site, would be remediated by utilizing a vacuum truck to extract approximately 4 cubic yards of contaminated sludges from the bottom of the structure (12 to 14 ft. bgs). The excavated material would be analyzed to characterize it for proper off-site disposal.

Groundwater quality would be monitored semi-annually for a period of at least two years by collecting groundwater samples from the six monitoring wells sampled during the FRI.

Present Worth:	*$ 68,529*
Capital Cost:	*$ 59,229*
Annual O&M:	*$ 5,000*
Time to Construct:	*2 months*

Alternative 3: Soil Vapor Extraction

Alternative 3 would involve the installation of a soil vapor extraction system. Clean air would be forced down an injection well into the area of soil contamination, promoting the volatilization of the contaminants. An extraction well utilizing a vacuum would then draw the contaminated vapors from the soil to the ground surface. The contaminated vapors would pass through a carbon filter prior to being discharged to the atmosphere. At least four months of continuous operation of the system is estimated to complete the removal.

The catch basin located at 54 Kinkel Street, abutting and downgradient of the site, would be remediated by utilizing a vacuum truck to extract approximately 4 cubic yards of contaminated sludges from the bottom of the structure (12 to 14 ft. bgs). The excavated material would be analyzed to characterize it for proper off-site disposal.

Groundwater quality would be monitored semi-annually for a period of at least two years by collecting groundwater samples from the six monitoring wells sampled during the FRI.

Present Worth:	*$83,463*
Capital Cost:	*$74,163*
Annual O&M:	*$ 5,000*
Time to Construct:	*4 months*

7.2: Evaluation of Remedial Alternatives

The criteria used to compare the potential remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6 NYCRR Part 375). For each of the criteria, a brief description is provided, followed by an evaluation of the alternatives against that criterion. A detailed discussion of the evaluation criteria and comparative analysis is included in the Focused Feasibility Study.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs).

Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.

The soil contamination found in the abandoned cesspool source area exceeds the cleanup standards in TAGM #4046- Determination of Soil Cleanup Objectives and Cleanup Levels. Alternative 1 would not reduce the soil contamination below the cleanup levels, although the VOCs may biodegrade over a protracted period of time, the metals levels would remain the same. Alternative 3 would reduce VOCs contamination, however some of the metal contamination would still remain at the site. Alternative 2 would reduce the VOCs and metals contamination below the soil cleanup levels.

2. Protection of Human Health and the Environment.

This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

Alternative 1 offers the least protection to human health and the environment, relying on natural biodegradation to reduce the level of contamination.

Alternative 3 offers moderate protection of the environment and public health. Alternative 2 offers the greatest protection to public health and the environment by removing the source of contamination.

3. Short Term Effectiveness.

The potential short term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Alternative 1 offers no short term effectiveness. Alternative 3 offers good short term effectiveness in that the majority of the contamination would be removed during the early stages of the operation. Alternative 2 offers the greatest short term effectiveness by eliminating the source of contamination: however, during the construction, on-site workers and the adjacent public may be exposed to fugitive dust. The Health and Safety Plan and Community Air Monitoring would mitigate this problem.

4. Long Term Effectiveness and Permanence.

This criterion evaluates the long term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

Alternative 1 offers little long term effectiveness. VOCs would be bio-degraded over time, however this may increase the levels of the breakdown compounds in the soil and groundwater. The metals would continue to remain at the site. Alternative 3 would offer good long term effectiveness for VOCs contamination, however would have little effectiveness with the metal contamination. Alterative 2 offers good long term effectiveness for both VOCs and metal contamination.

5. Reduction of Toxicity, Mobility or Volume.

Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternative 1 offers no reduction in toxicity, mobility and volume. Alternative 3 offers a reduction in toxicity, mobility and volume of organic soil contamination, however not for metals. The radial influence would depend on the system design and the existence of concrete walls of the abandoned cesspool. Alternative 2 offers the greatest reduction in toxicity, mobility and volume of the waste at the site. Excavation within the walls of the cesspool would remove all contaminants that remain in the cesspool.

6. Implementability.

The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

Alternative 3 may be moderately difficult to implement. The soil vapor extraction system requires recurring operation and maintenance attention. Alternative 2 may be moderately difficult to implement depending upon site logistics and the existence of unknown underground structures. Alternative 1 is the easiest to implement requiring only the collection of soil and groundwater samples.

7. Cost.

Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision.

Alternative 1 and Alternative 3 have similar estimated present worth of cost $ 82,850 and $ 83,463, respectively. Alternative 2 at an estimated present worth cost of $ 68,529 is approximately 16 % less than either of the other two alternatives.

8. Community Acceptance

Concerns of the community regarding the FRI/FFS reports and the Proposed Remedial Action Plan have been evaluated. The "Responsiveness Summary" included as Appendix A presents the public comments received and the Department responses to the concerns raised. No significant comments were received.

SECTION 8: SUMMARY OF THE SELECTED REMEDY

The Department has been using a three-prong strategy in remediating Class 2 sites in the NCIA. In accordance with this strategy, first, the Department selected excavate and remove the sources of soil contamination at the Former LAKA Industries site; second, groundwater contamination at and beneath the site was investigated and determined that groundwater contamination at the site ranges from 130 to 198 ppb of total VOCs. Even though this exceeds the SCGs, the Department believes that after the removal of the source, groundwater quality will improve at and beneath the site, hence on-site groundwater will be monitored for a period of at least two years; third, the Department is currently conducting a detailed investigation of groundwater contamination that is migrating from all Class 2 sites, including the Former LAKA Industries site, in the NCIA. Upon completion of this groundwater investigation, a remedy will be proposed to the public. After public review, a final groundwater remedy will be selected.

Based upon the results of the FRI/FFS, and the evaluation presented in Section 7, the NYSDEC selected Alternative 2, Excavation and Off-site Disposal, as the remedy for this site. This selection is based upon the evaluation of the three alternatives developed for this site. With the exception of the no action alternative, each of the alternatives would comply with the threshold criteria. In addition, each of the remaining alternatives are similar with respect to the majority of the balancing criteria. The major differences between Alternatives 2 and 3 are permanence and costs. Alternative 2, Excavation and Off-site Disposal, will provide permanence by removing the source of both VOCs and metals contamination, while Alternative 3, Soil Vapor Extraction, would result in the metal contamination remaining on-site. Alternative 1 and Alternative 3 costs are approximately the same, while Alternative 2 will cost 16 % less than either of the other Alternatives.

Thus Alternative 2, Excavation and Off-site Disposal, will be protective of human health and the environment, provide a permanent solution for the soil contamination, provide both short term and

long term effectiveness and be the least costly. Although, on-site groundwater is contaminated with 130 ppb to 198 ppb total VOCs, it is expected that after the removal of the contaminant source, groundwater quality will improve; and hence, monitoring of groundwater quality is selected. The monitoring results will be reviewed annually to determine whether additional actions are necessary. Downgradient (off-site) groundwater contamination ranges from 144 to 340 ppb of total VOCs. This downgradient (off-site) groundwater contamination will be addressed as a part of the overall investigation of the groundwater contamination that is migrating from all Class 2 sites in the NCIA. The estimated present worth cost to implement the selected remedy is $ 68,529. The cost to construct the remedy is estimated to be $ 59,229. The contaminated soil will be removed and disposed off-site and groundwater quality will be monitored on a semi-annual basis.
The elements of the selected remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, and monitoring of the remedial program. Any uncertainties identified during the FRI/FFS will be resolved.

2. The Excavation and Off-site Disposal Alternative will involve the following elements:

   - The hand excavation of the first four feet of soil to locate any underground utilities and structures.
   - Installation of shoring and bracing to protect the existing building during excavation.
   - Excavation to a depth of 25 feet using appropriate excavation equipment to remove contaminated soils.
   - Confirmatory soil samples will be collected at bottom of the excavation to insure that all soils above the TAGM values were removed.
   - Excavated soils will be staged and soil samples collected and analyzed to determine the proper method of off-site disposal and treatment, if necessary.
   - Backfill of the excavation with clean fill material.
   - Extract the contaminated sludges from the bottom of the catch basin located at 54 Kinkel Street by utilizing a vacuum truck. The sludge will be analyzed to determine the proper method of off-site disposal and treatment, if necessary.
   - Semi-annual groundwater monitoring of four shallow and two deep monitoring wells, for at least two years, to measure quality improvements resulting from the removal of the source of contamination. The monitoring results will be reviewed annually to determine whether additional actions are necessary.
   - Implementation of institutional controls and the recording of deed restrictions to restrict the future use of groundwater at the site.

- Downgradient (off-site) groundwater contamination will be addressed as a part of the overall investigation of the groundwater contamination that is migrating from all Class 2 sites in the NCIA.

SECTION 9: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Four repositories for documents pertaining to the site were established.

- A site mailing list was established for the New Cassel Industrial Area, in which the site is located. The mailing list includes nearby property owners and residences, local political officials, New Cassel Environmental Justice Project , local community groups, local media and other interested parties.

- Fact sheets were distributed, prior to each public meeting, detailing the remedial activities at the New Cassel Industrial Area and specifically the Former LAKA Industries site. Public meeting were held on March 1996, October 1996, May 1997, December 1997, May 1998, December 1998, May 1999 and September 1999.

- Details of the remedial investigation were first presented to the public at the May 1999 public meeting. The PRAP was presented at the September 30, 1999 public meeting held at the East Meadow High School, 101 Carman Avenue, East Meadow, New York. The public comment period began on September 13, 1999 and ended on October 13, 1999.

- In October, 1999 a Responsiveness Summary was prepared and made available to the public to address the comments received during the comment period for the PRAP.

Table 1
Nature and Extent of Contamination Soils
Focused Remedial Investigation, dated November 1998
Parts per Million (ppm)

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE (ppm)	FREQUENCY EXCEEDING SCGs	SCGs - (ppm)
Soils	Volatile Organic Compounds (VOCs)	Trichloroethylene	ND to 3.5	2 of 69	0.7
		2- Butanone	ND to 0.34	1 of 69	0.3
Sludges (Catch basin at 52 Kinkel St.)	Volatile Organic (VOCs) Compounds	Ethylbenzene	0.63	0 of 2	5.5
		Xylene	1.2 to 1.7	2 of 2	1.2
Soils	Metals	Arsenic	ND to 14.0	2 of 19	7.5
		Cadmium	ND to 1.6	0 of 19	10.0
		Mercury	ND to 1.0	11 of 19	0.1
		Nickel	ND to 97.0	2 of 19	13.0
		Iron	57 to 10,300	16 of 19	2,000

Note: ND - non-detect
SCGs - standards, criteria, and guidance

Table 2
Nature and Extent of Contamination Groundwater
Focused Remedial Investigation, dated November 1998
Part per Billion (ppb)

	Well Number	1,1-DCE	1,1-DCA	1,2-DCEt	1,1,1-TCA	TCE	PCE	Total VOCs
Upgradient	MW-201	ND	ND	ND	3.0	2.0	9.0	14.0
	FLMW-204 A	ND	ND	ND	5.0	7.0	14.0	26.0
	FLMW-204 B	1.0	ND	6.0	5.0	35.0	33.0	80.0
	Conc. Range	**ND to 1**	**ND**	**ND to 6**	**3.0 to 5.0**	**2.0 to 35.0**	**9.0 to 33.0**	**14 to 80**
On-site	MW-202	ND	55.0	8.0	49.0	4.0	14.0	130.0
	FLMW-202 B	ND	ND	2.0	3.0	19.0	38.0	62.0
	DOAK MW-3	1.0	25.0	94.0	39.0	29.0	10.0	198.0
	Conc. Range	**ND to 1.0**	**ND to 55.0**	**2.0 to 94.0**	**3.0 to 49.0**	**4.0 to 29.0**	**10.0 to 38**	**62 to 198**
Side Gradient	DOAK MW-1	8.0	6.0	7. 0	53.0	6.0	56.0	136.0
	MW-203	ND	8.0	66.0	21.0	14.0	11.0	120.0
	DOAK MW-2	4.0	8.0	1.0	43.0	4.0	15.0	75.0
	Conc. Range	**ND to 8.0**	**6.0 to 8.0**	**1.0 to 66**	**21 to 53**	**4.0 to 14.0**	**11 to 56**	**75 to 136**
Downgradient	FLMW-205 A	ND	ND	98.0	7.0	36.0	3.0	144.0
	FLMW-205 B	21.0	13.0	32.0	65.0	99.0	110.0	340.0
	FLMW-206 A	2.0	12.0	110.0	38.0	45.0	8.0	215.0
	FLMW-206 B	18.0	28.0	23.0	49.0	34.0	47.0	199.0
	Conc. Range	**ND to 21**	**ND to 28**	**23 to 110**	**7 to 65**	**34 to 99**	**3 to 110**	**144 to 340**
Standards, Criteria & Guidance		5	5	5	5	5	5	Not Applicable

Legend: ND - Non-Detect
1,1-DCE = 1, 1 Dichloroethylene 1,1-DCA = 1,1-Dichlorethane 1,2- DCEt = 1,2-Dichloroethylene (total)

TCE = Trichloroethlyene PCE = Tetrachloroethlyene total VOCs = Total Volatile Organic Compounds

Table 3
Remedial Alternative Costs

Remedial Alternative	Capital Cost	Annual O&M	Total Present Worth
Alt. # 1 No Action	$0	$ 19,125	$ 82,850
Alt. # 2 Excavation & Off-site Disposal	$59,229	$ 5,000	$ 68,529
Alt. # 3 Soil Vapor Extraction	$ 74,163	$ 5,000	$ 83,463

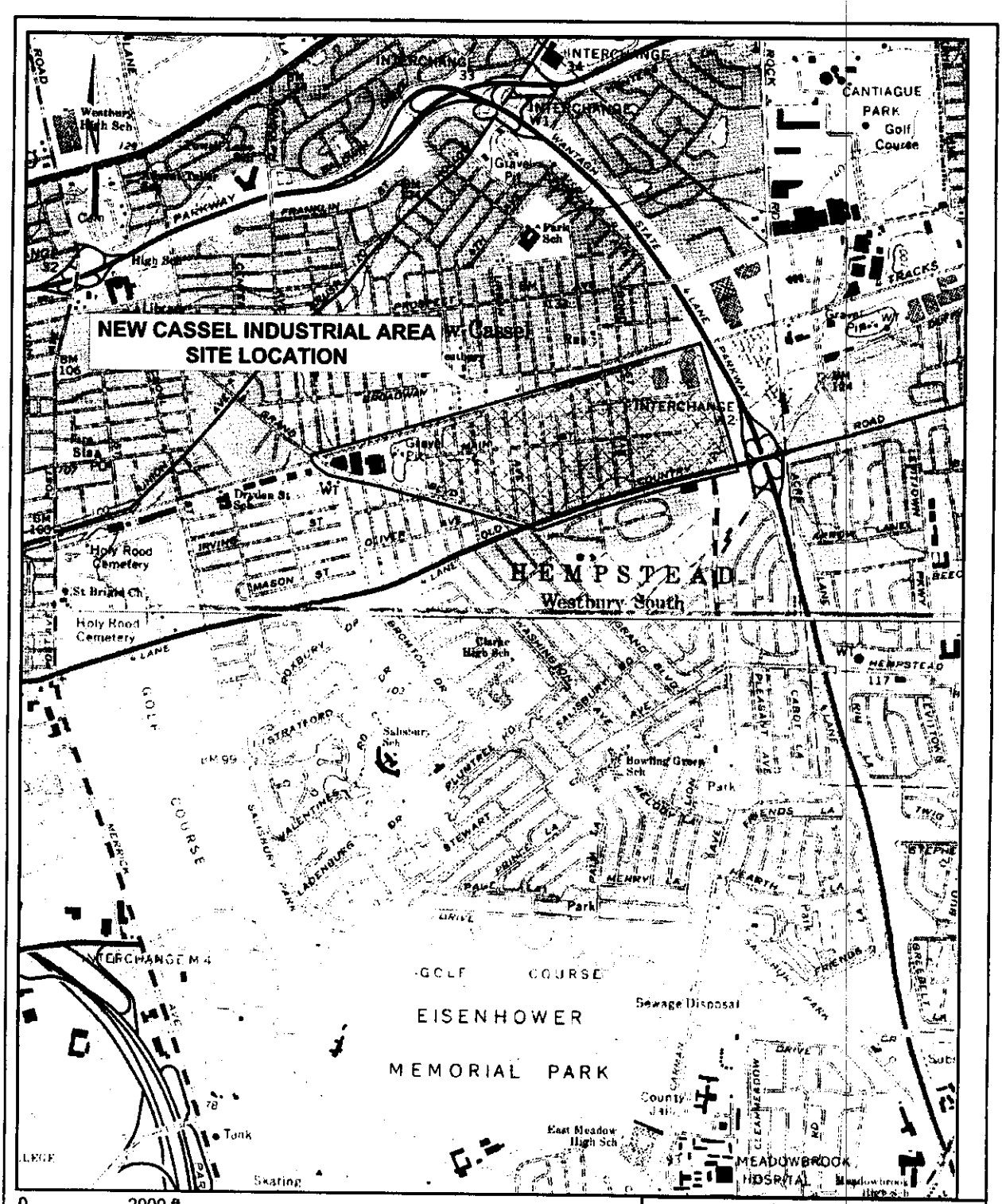
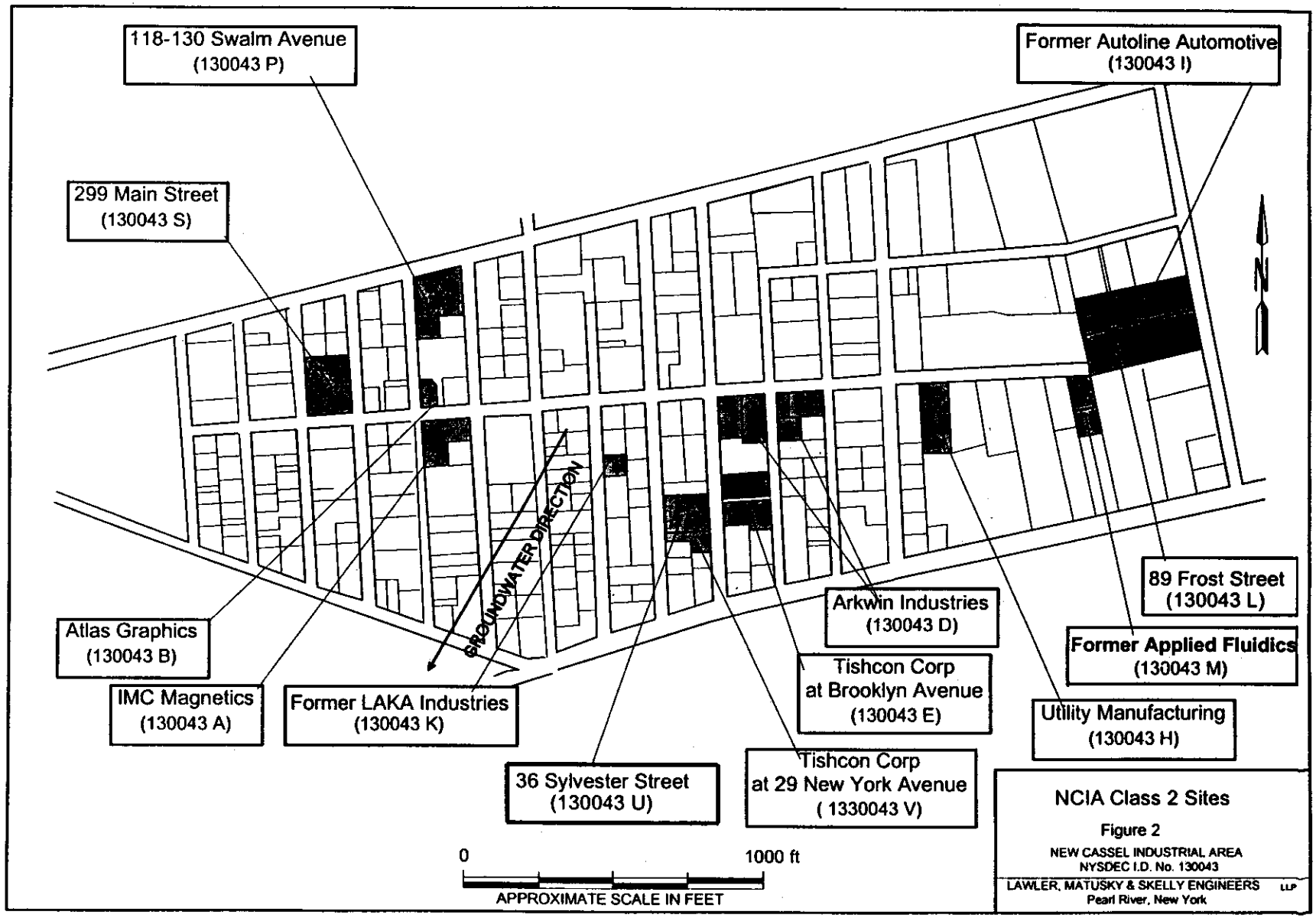
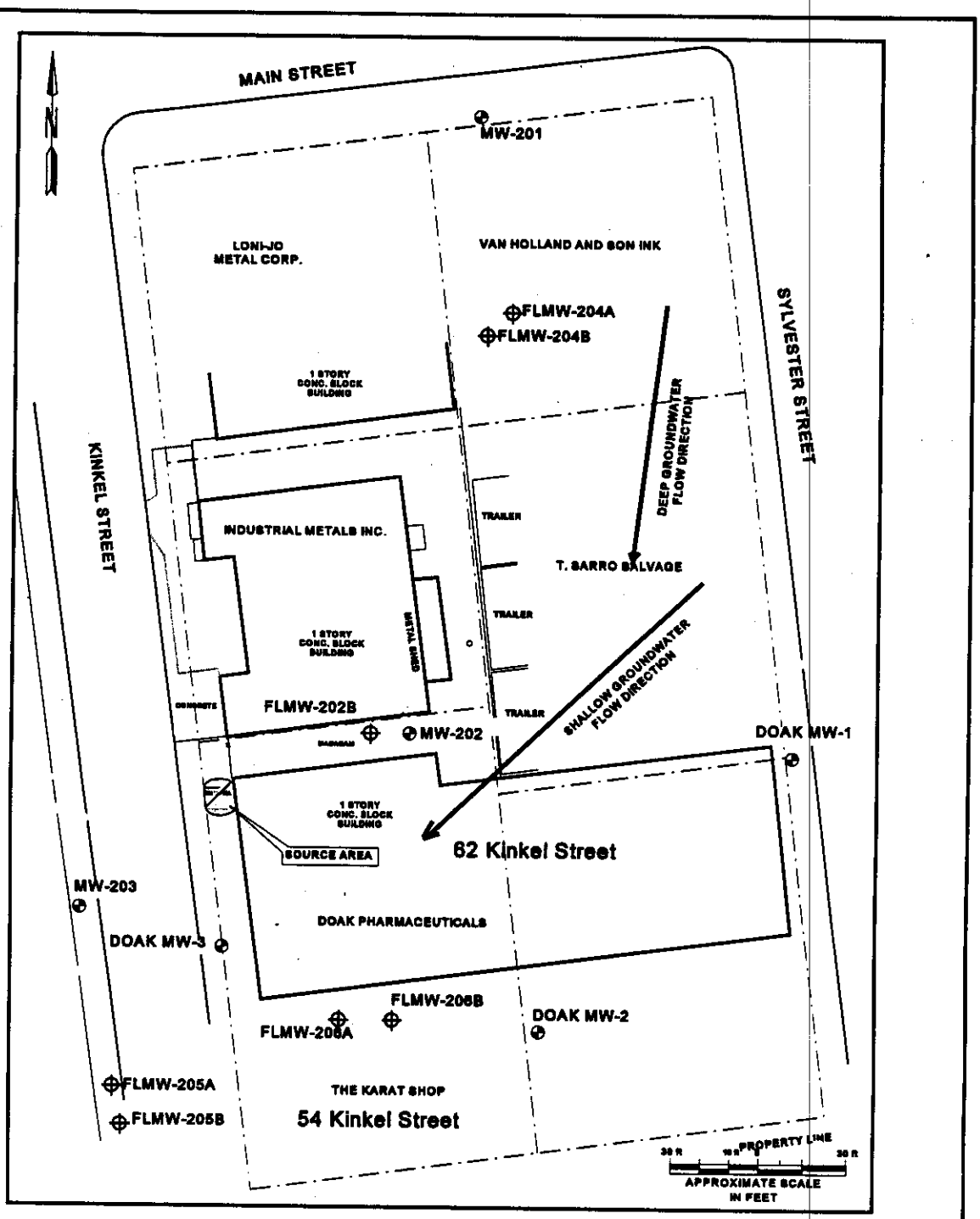


Figure 1

New Cassel Industrial Area Site Location

ATLAS GRAPHICS
NEW CASSEL INDUSTRIAL AREA
NYSDEC I.D. No. 130043 B
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York


118-130 Swalm Avenue
(130043 P)
Former Autoline Automotive
(130043 I)
299 Main Street
(130043 S)
N
GROUNDWATER DIRECTION
89 Frost Street
(130043 L)
Arkwin Industries
(130043 D)
Atlas Graphics
(130043 B)
Former Applied Fluidics
(130043 M)
Tishcon Corp
at Brooklyn Avenue
(130043 E)
IMC Magnetics
(130043 A)
Former LAKA Industries
(130043 K)
Utility Manufacturing
(130043 H)
36 Sylvester Street
(130043 U)
Tishcon Corp
at 29 New York Avenue
(1330043 V)
0
1000 ft
APPROXIMATE SCALE IN FEET
NCIA Class 2 Sites
Figure 2
NEW CASSEL INDUSTRIAL AREA
NYSDEC I.D. No. 130043
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

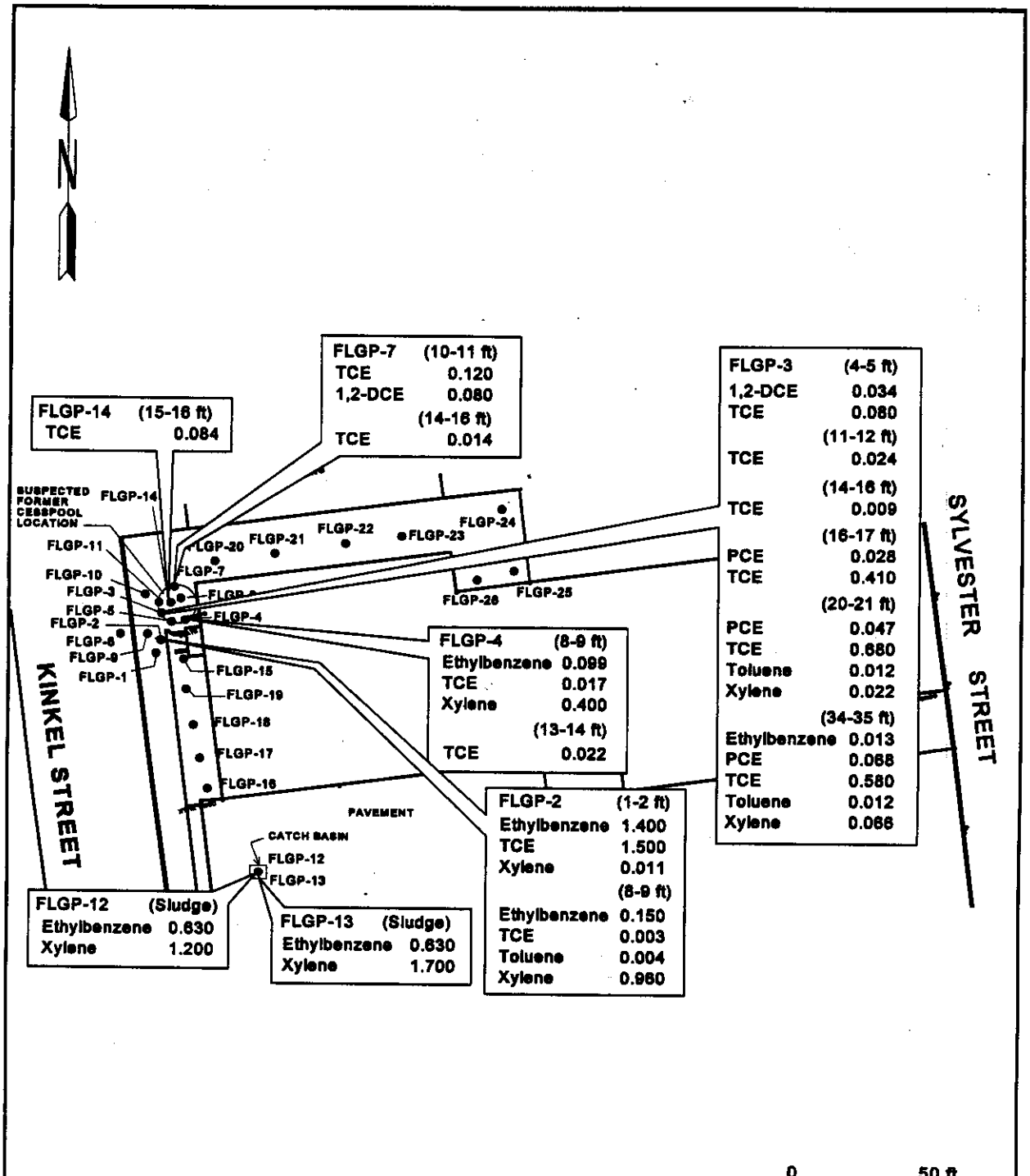


Legend

- Existing monitoring well
- New monitoring well

A = Shallow well
B = Deep well

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	Monitoring Locations Former LAKA Site RI/FS, 62 Kinkel Street NYSDEC I.D. No.: 130043K	Figure 3 dwsite02.dwf

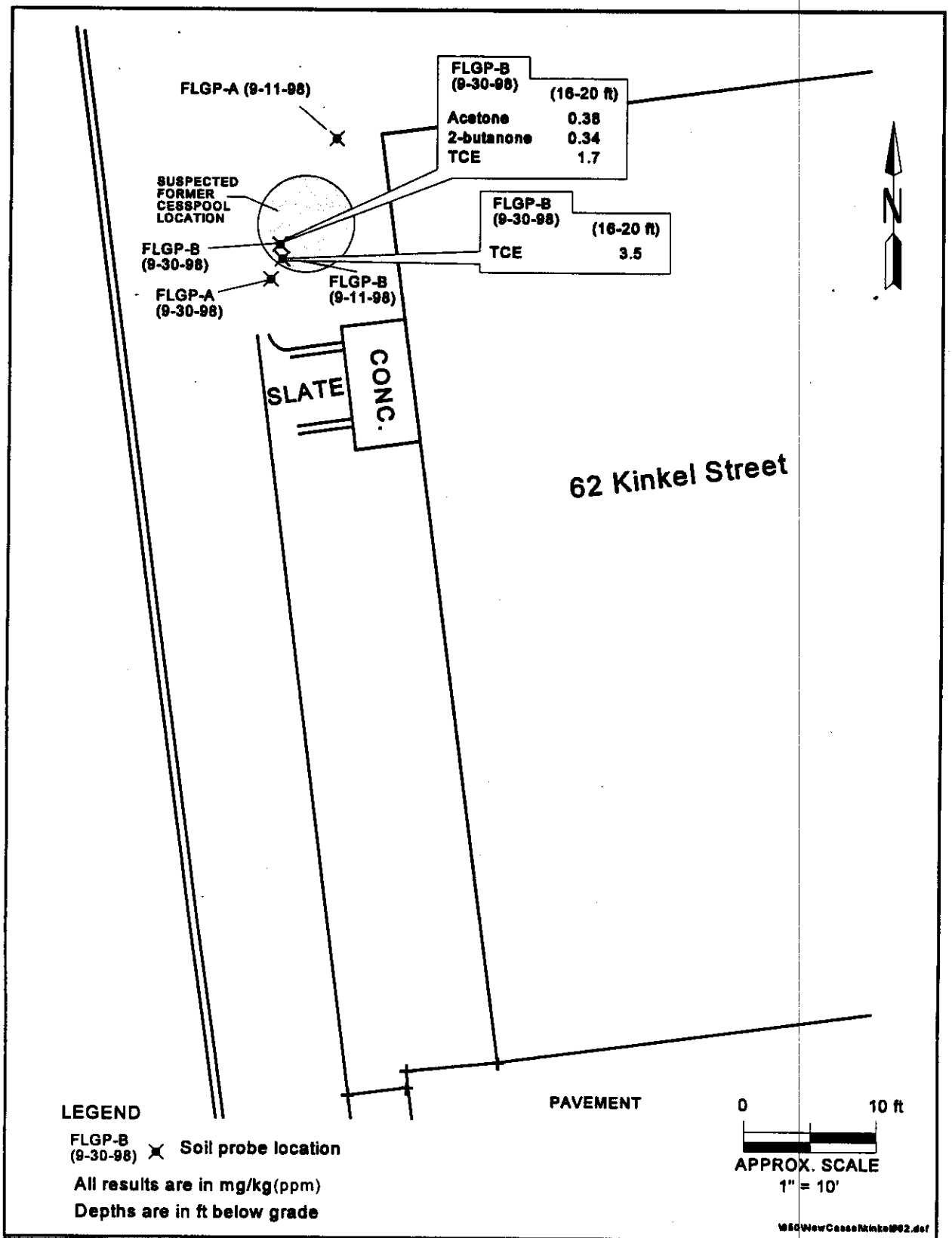


NOTE:

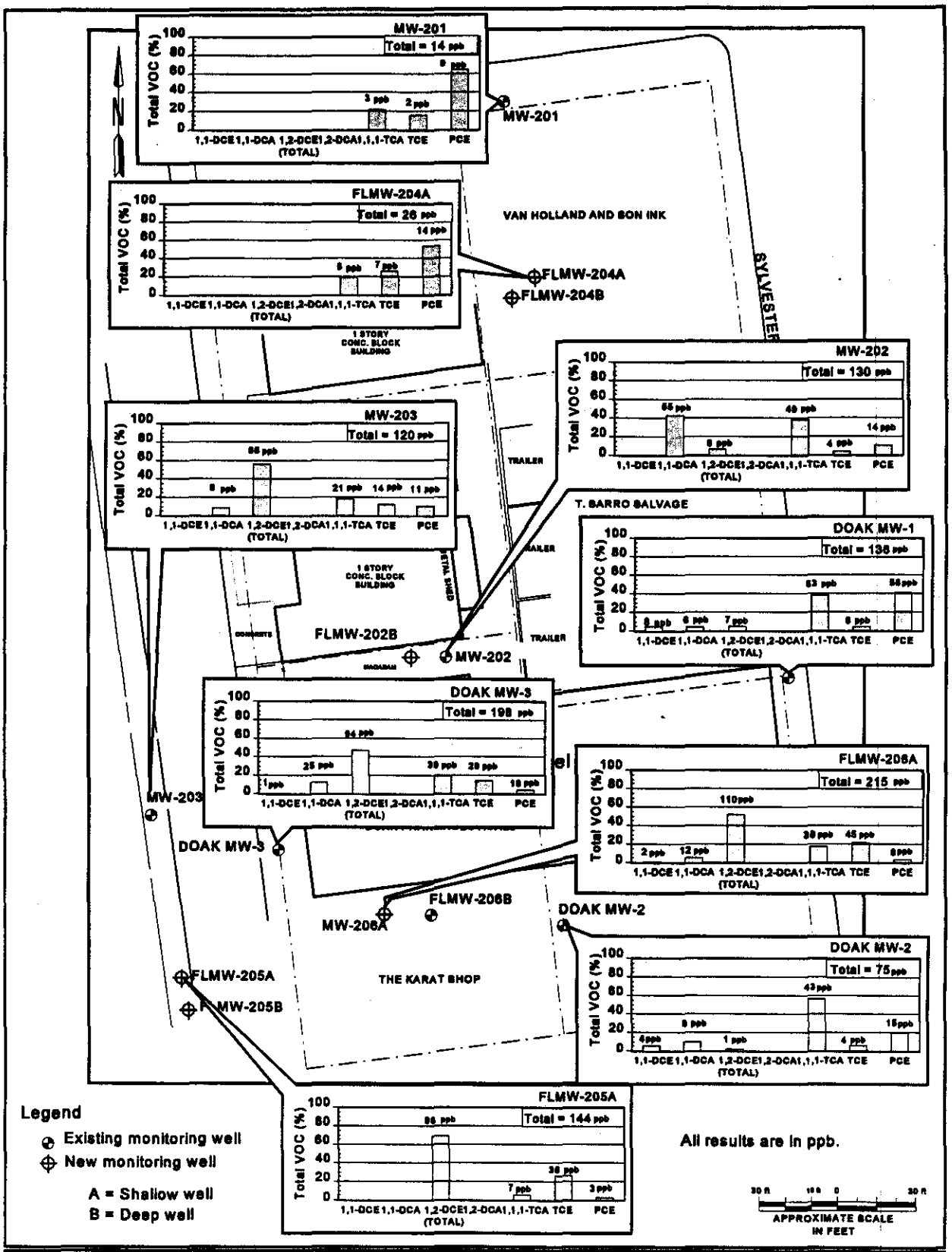
All results are in mg/Kg (ppm)

WowCasse\kinkel62.dgf

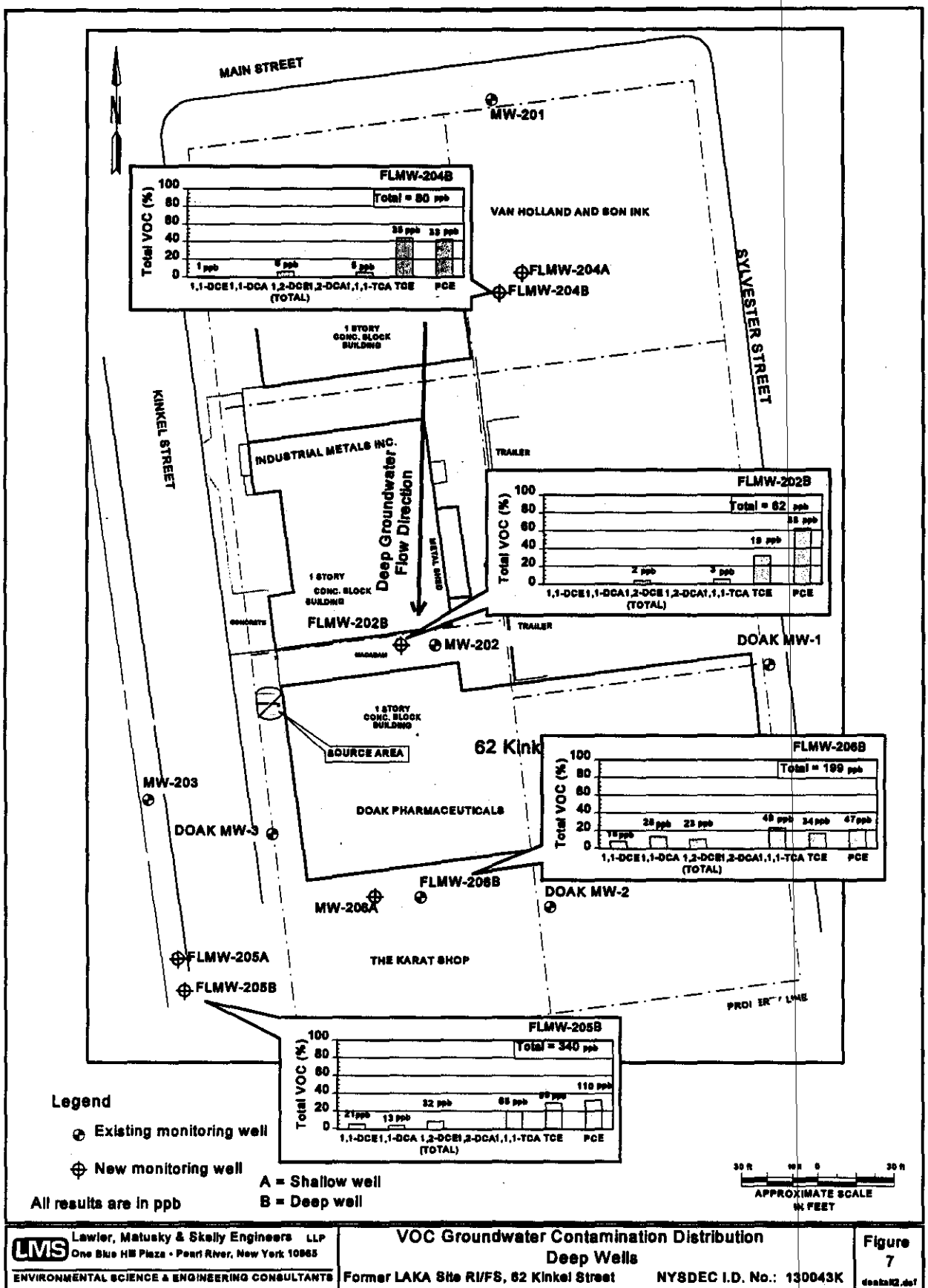
LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL-SCIENCE & ENGINEERING CONSULTANTS	Phase I Probe Soils Sampling Results Former LAKA Site RI/FS, 62 Kinkel Street NYSDEC I.D. No.: 130043K	Figure 4



LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	Phase II Soil Probe Sampling Results Former LAKA Site RI/FS, 62 Kinkel Street NYSDEC I.D. No.: 130043K	Figure 5



LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	VOC Groundwater Contamination Distribution Shallow Wells Former LAKA Site RI/FS, 62 Kinkel Street NYSDEC I.D. No.: 130043K	Figure 6 desist2.dsf



LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	VOC Groundwater Contamination Distribution Deep Wells Former LAKA Site RI/FS, 62 Kinkel Street NYSDEC I.D. No.: 130043K	Figure 7 deskill2.dsf

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

FORMER LAKA INDUSTRIES, INC.
Record of Decision
Town of North Hempstead, Nassau County
Site No. 1-30-043 K
Operable Unit - 01: On-site Soil & Groundwater

The Proposed Remedial Action Plan (PRAP) for the Former LAKA Industries, Inc site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on September 13, 1999. This Plan outlined the preferred remedial measure proposed for the remediation of the contaminated soil and sediment at the Former LAKA Industries, Inc. site. The preferred remedy is excavation of the on-site abandoned cesspool and the vacuum extraction of the sludge from the downgradient catch basin and proper off-site disposal of the waste material.

The release of the PRAP was announced via a notice to the mailing list, informing the public of the PRAP's availability.

A public meeting was held on September 30, 1999, which included a presentation of the Focused Remedial Investigation (FRI) and the Feasibility Study (FS) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. No written comments were received from the public.

The public comment period for the PRAP ended on October 13, 1999.

Several questions were raised regarding odors and dust from Jamaica Ash, a solid waste facility located in the western part of the New Cassel Industrial Area (NCIA). The public was referred to contact Mr. Anthony Cava or Mr. Stanley Farkas of the NYSDEC's Region 1 office in Stony Brook.

This Responsiveness Summary responds to all questions and comments raised at the September 30, 1999 public meeting.

The following are the comments received at the public meeting, with the NYSDEC's responses:

Comment 1. You have stated that groundwater in the New Cassel Industrial Area is contaminated. Is my family drinking contaminated groundwater?

Response 1. You are not drinking contaminated groundwater. The water that is delivered to consumers from the Town of Hempstead Department of Water is drawn from a depth in excess of five hundred feet below the ground surface, well below the level at which the greatest levels of contamination are found (high levels of contamination are detected at depths of fifty to one hundred and twenty feet below ground surface). The pumped out water is then treated by an air stripper followed by carbon filtration to remove any contaminants. The water is also tested at regular intervals to ensure that the water meets drinking water standards before it is distributed to consumers.

Comment 2. Water from my faucet has at times been turbid and discolored, especially when there have been excavations involving water mains near my house. Is it possible that contaminated groundwater has entered the water delivery system, and that I have consumed contaminated groundwater?

Response 2. The water mains are located approximately four to six feet below the ground surface. The water table in the New Cassel Industrial Area and the surrounding residential areas is a minimum of fifty feet below the ground surface. Even if the water mains were broken, it would not be possible for the groundwater to contaminate them. The discoloration that you have observed is more likely to be due to iron oxide originating within the system.

Comment 3 What is a Consent Order?

Response 3. In the New York State Inactive Hazardous Waste Disposal Site program, a Consent Order is an agreement between the responsible party and the Department to conduct a remedial activity for a site such as an investigation, feasibility study, remedial design or construction. Once the agreement is executed the responsible party performs the remedial activity and the Department provides staff oversight of field work and reviews all reports, making sure that the work was performed in accordance with Department procedures. The Department staff make sure that the personnel performing the work are qualified and that the samples are properly collected.

Comment 4. Did the Department consider other alternatives at the Former LAKA site?

Response 4. The Department also considered the No Action and Soil Vapor Extraction (SVE) alternatives which are presented in the PRAP and the ROD as Alternatives 1 and 3. The selected remedy, excavation and off-site disposal was found to be the most effective, as it will remediate both the VOC and metal contamination, and is also the least costly of the alternatives considered.

Comment 5. When will the site be remediated?

Response 5. The responsible party will be offered the opportunity to implement the selected remedy under a Consent Order with the Department. Should the responsible party be unwilling to perform the work, the Department will implement the selected remedy using state superfund money. Under either scenario, construction of the selected remedy should be completed by the end of year 2000.

APPENDIX B

Administrative Record

ADMINISTRATIVE RECORD

FORMER LAKA INDUSTRIES, INC.
Proposed Remedial Action Plan
Town of North Hempstead, Nassau County
Site No. 1-30-043 K

1.. New York State Superfund Contract, Field Activities Plan, Former LAKA Site (Site No. 1-30-043 K) Work Assignment No. D 002676-27.1, Lawler, Matusky & Skelly Engineers, March 1997.

2. New York State Superfund Contract, Focused Remedial Investigation Report, Former LAKA Industries Site, Work Assignment No. D 002676-27.1, Lawler, Matusky & Skelly Engineers, November 1998.

3. New York State Superfund Contract, Focused Feasibility Report, Former LAKA Industries Site, Work Assignment No. D 002676-27.1, Lawler, Matusky & Skelly Engineers, May 1999.